2739

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FEED MATERIALS PRODUCTION CENTER REMEDIAL INVESTIGATION AND FEASIBILITY STUDY COMMUNITY MEETING AGENDA OCTOBER 24, 1989

10/24/1989

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NOTICE

[redacted]

Feed Materials Production Center
Remedial Investigation and Feasibility Study

2739

COMMUNITY MEETING
AGENDA

OCTOBER 24, 1989

MEET THE EXPERTS – 6 TO 7:30 p.m.

The scientists and engineers who are performing the Remedial Investigation and Feasibility Study are available to answer your questions face-to-face. They are available at four locations along the back wall tonight.

FORMAL MEETING

Convene for Presentations	Jim Bischoff, Moderator Superintendent of Ross Schools	7:30 p.m.
DOE Welcome	Ray Hansen, DOE Deputy Site Manager	7:35 p.m.
Introduction	Jim Bischoff	7:40 p.m.
Clean-up Process Overview Remedial Investigation Risk Assessment Feasibility Study Removal Actions	Andy Avel, DOE RI/FS Manager Bob Galbraith, Senior Geologist John Frazier, Health Physicist Joe Yeasted, Technical Director Steve Shirley, Remediation Engineer	7:50 p.m.
	Refreshment Break	8:50 p.m.
Group Question-and-Answer Session	Panel	9:00 p.m.
Wrap-Up	Jim Bischoff	10:00 p.m.

Panelists will stay as long as necessary to answer all questions.

Think about the way tonight's meeting was organized.
For future meetings, would you include:

	YES	NO	WHY
Information Booths	___	___	_____
Technical Speeches	___	___	_____
Question/Answer Panel			
-questions at the mike	___	___	_____
-written questions	___	___	_____
-use of flip chart	___	___	_____
Handout Materials	___	___	_____
Refreshment Break	___	___	_____

What topics would you like to hear about at future meetings?

1. _____

2. _____

3. _____

4. _____

COMMENTS:

FEED MATERIALS PRODUCTION CENTER
REMEDIAL INVESTIGATION/FEASIBILITY STUDY

EVALUATION

of

FALL COMMUNITY MEETING

October 24, 1989

FEED MATERIALS PROD[redacted]
REMEDIAL INVESTIGATION / FEASIBILITY STUDY 2739

Community Meeting
October 24, 1989

REMEDIAL INVESTIGATION

Bob Galbraith

RISK ASSESSMENTS

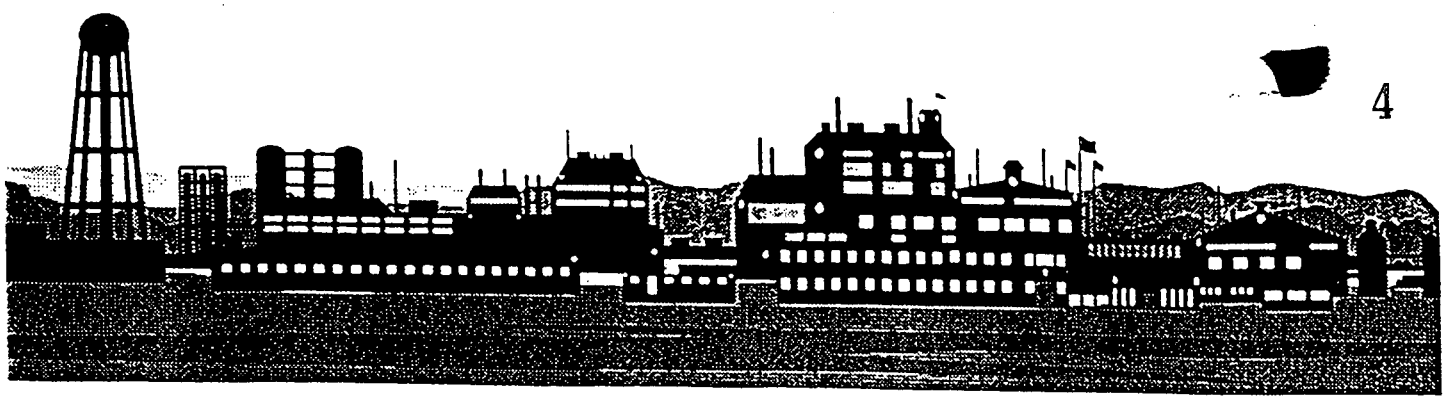
John R. Frazier, Ph.D.

FEASIBILITY STUDY: FINDING SOLUTIONS

Joe Yeasted, Ph.D.

REMOVAL ACTIONS: NEAR-TERM CLEAN-UP

Steve Shirley



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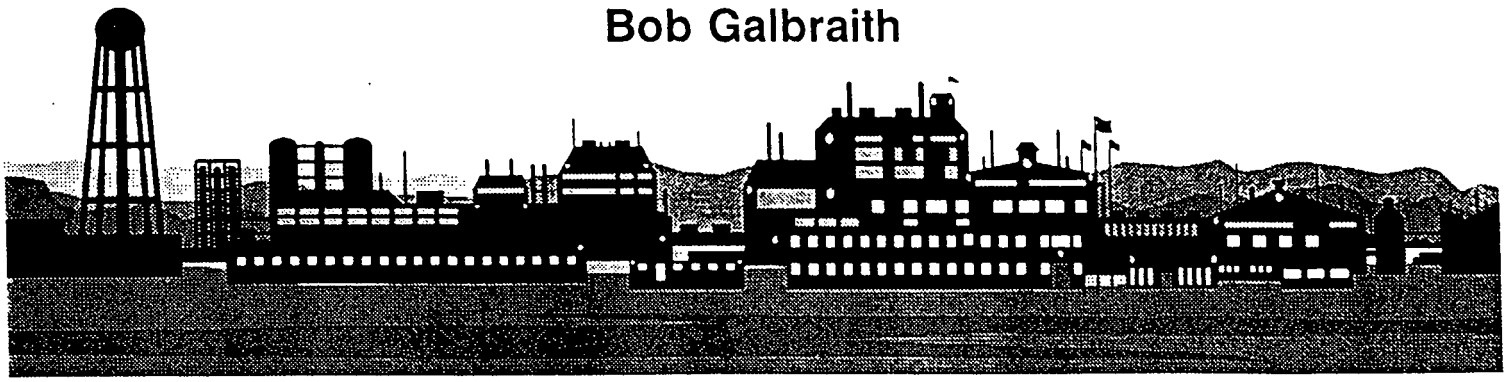
REMEDIAL INVESTIGATION

FEED MATERIALS PRODUCTION CENTER
REMEDIAL INVESTIGATION / FEASIBILITY STUDY

Community Meeting
October 24, 1989

Bob Galbraith



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REMEDIAL INVESTIGATION

Past Highlights

- Past Meetings Have Discussed:
  - Area of surface radiation surveys
  - Surface soil sampling
  - Monitoring well data, including water table maps
  - Total uranium in ground water

Current Activities

- Evaluating Data From all Phases of the Investigation
  - Where are data gaps?
  - What is needed to complete the investigation?
  - Are more wells or samples needed?
- Operable Units With Current Activities:
  - Silos
  - Production and Suspect Areas
  - South Plume

K-65 Silos

- Berm Sampling is Planned for November
- Horizontal Borings Will be Drilled to Check for Leaks from the Silos

Suspect Areas

- Investigation to Begin During November
  - South Field
  - Fire Training Area

REMEDIAL INVESTIGATION

[redacted]

Production Area

- 180 Borings Drilled
  - Each up to 20 feet deep
  - Analyzing up to six soil samples per boring
- Piezometers are Installed When Water is Present to:
  - Check for water levels
  - Identify the quality of the water

South Plume: Problem Definition Continues

- DOE Recently Gained Access to Drill Five South Plume Monitoring Wells
- More data to be obtained through sharing agreement with the Paddy's Run Road RI/FS

Future Remedial Investigation Activities

- Complete Field Work by Spring 1990
- WMCO to Continue Environmental Monitoring

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Dear Neighbor,

Thank you for sharing your valuable time with the U.S. Department of Energy and its environmental staff this evening. Your views are important.

Each community meeting is designed to meet the information needs of the community. You may have noticed a few new features in tonight's meeting, such as:

- Opportunity to meet with the RI/FS environmental scientists and engineers individually, before the start of the formal meeting.
- Opportunity to write your questions down as well as asking them at the microphone.
- A neutral meeting moderator with no ties to DOE.

RATING SCALE:

1 = VERY USEFUL
2 = USEFUL
3 = NOT USEFUL

MEETING EVALUATION
(use rating scale on opposite page)

Place an "X" on the line that best describes your views. Use the space at the bottom and on the next page for additional comments. Thank You.

Information Booths	1	2	3
Defining the Problem	___	___	___
Developing Solutions	___	___	___
The Cleanup Process	___	___	___
Community Participation	___	___	___

Technical Presentations	1	2	3
The Cleanup Process	___	___	___
Remedial Investigation	___	___	___
Risk Assessment	___	___	___
Feasibility Study	___	___	___
Removal Actions	___	___	___

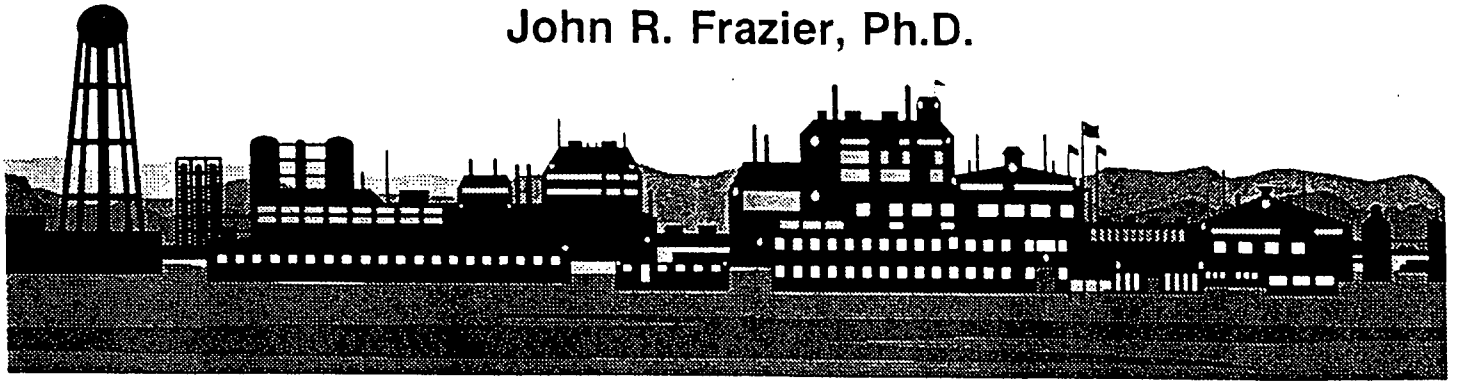
[redacted]

RISK ASSESSMENTS

FEED MATERIALS PRODUCTION CENTER
REMEDIAL INVESTIGATION / FEASIBILITY STUDY

Community Meeting
October 24, 1989

John R. Frazier, Ph.D.



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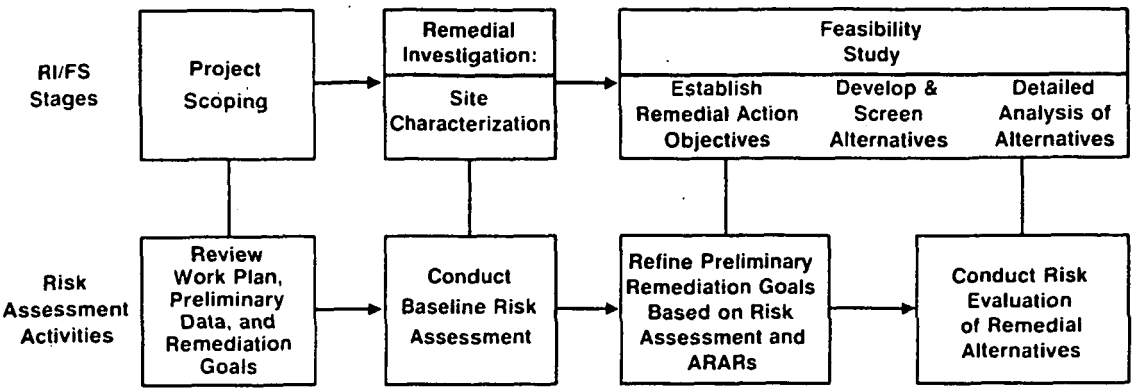
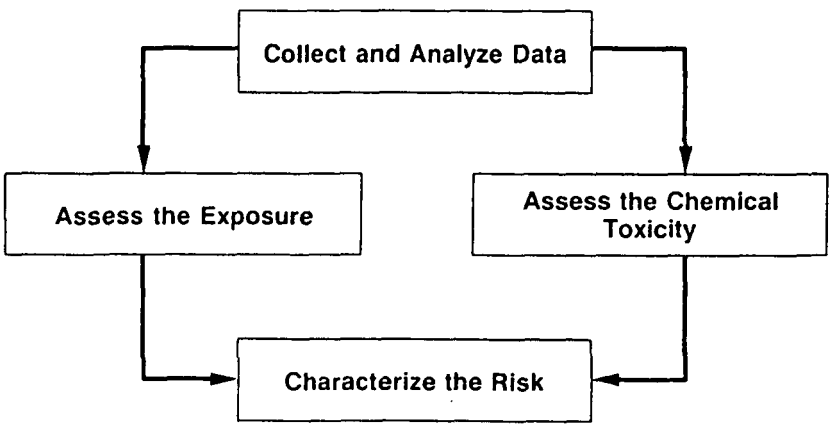
RI/FS RISK ASSESSMENT ACTIVITIES



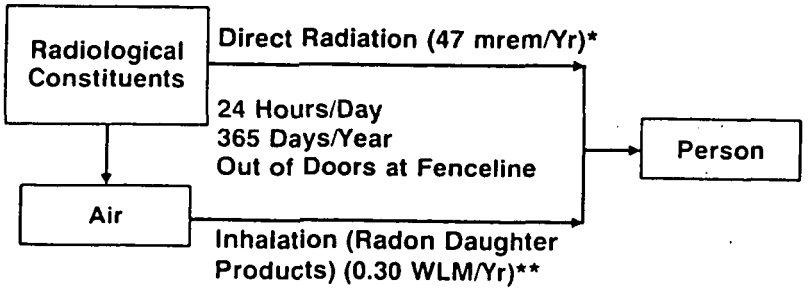
BASELINE RISK ASSESSMENT



DATA COLLECTION AND ANALYSIS

- Collect Background Data
- Gather and Analyze Data for the Source Term (Radiological and Chemical Constituents) in Each Operable Unit
- Identify Potential Radionuclides and Chemicals of Concern
- Assemble All Data Needed for Each Step of Exposure Calculations

EXAMPLE OF RADIATION DOSE CALCULATIONS
K-65 SILOS
(OPERABLE UNIT 4)

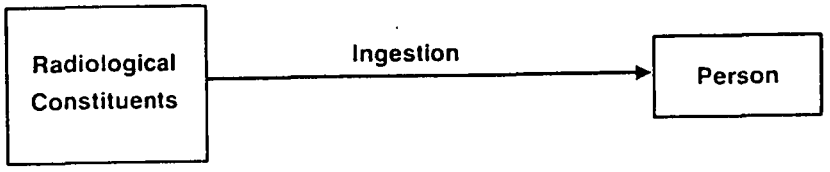


* Natural Background Radiation Dose Is Approximately 100 mrem/Year.

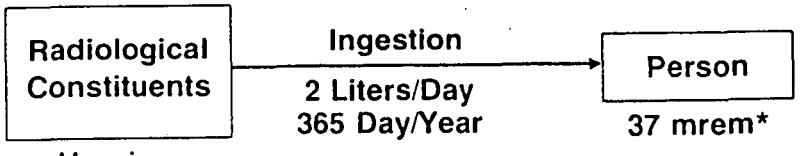
** Natural Background Exposure to Radon Daughter Products Is 0.13 WLM/Year.

2989 003

EXAMPLE OF EXPOSURE PATHWAYS
SOUTH PLUME
(OPERABLE UNIT 6)



EXAMPLE OF RADIATION DOSE CALCULATIONS
SOUTH PLUME
(OPERABLE UNIT 6)



Uranium
200 Picocuries/Liter

* Total Radiation Dose Received from This Intake over 50 Years. Approximately 12 mrem of This Dose Would Be Received During the First Year After Ingestion. This Compares to a Natural Background Radiation Dose from All Sources of Approximately 300 mrem per Year or 15,000 mrem over 50 Years.

2989 006

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CHEMICAL TOXICITY ASSESSMENT

- Gather and Analyze Chemical Toxicity Information
- Determine Toxicity Reference Values

RISK CHARACTERIZATION

- Review Toxicity and Exposure Assessments
- Calculate Radiological Risks for Getting Cancer
- Calculate Health Risks From Chemical Exposures

BASELINE RISK ASSESSMENT REPORT

- Integral Part of RI
- Follows EPA Guidelines
- Describes Risks as Though No Clean-up Action Were Taken

RISK ASSESSMENT STATUS FOR EACH OPERABLE UNIT

Operable Unit	Status
1. Waste Pits	Data Collection and Analysis in Progress
2. Solid Waste Units	Data Collection and Analysis in Progress
3. Production Area	Scheduled to Begin After 1st of Next Year
4. Silos	Preliminary Baseline RA Report Being Written
5. Soil - Water	Scheduled to Begin After 1st of Next Year
6. South Plume	Preliminary Baseline RA Report Being Written

[redacted]

CONCLUSIONS

- Baseline Risk Assessments are Proceeding on Schedule
- Of the Six Operable Units, the K-65 Silos and South Plume Study Areas are the Largest Contributors of Off-site Doses
- RA Team is Participating in Remedial Alternatives Selection
- None of the Six Operable Units has been Found to Present an Imminent and Substantial Hazard to Off-site Populations

2739

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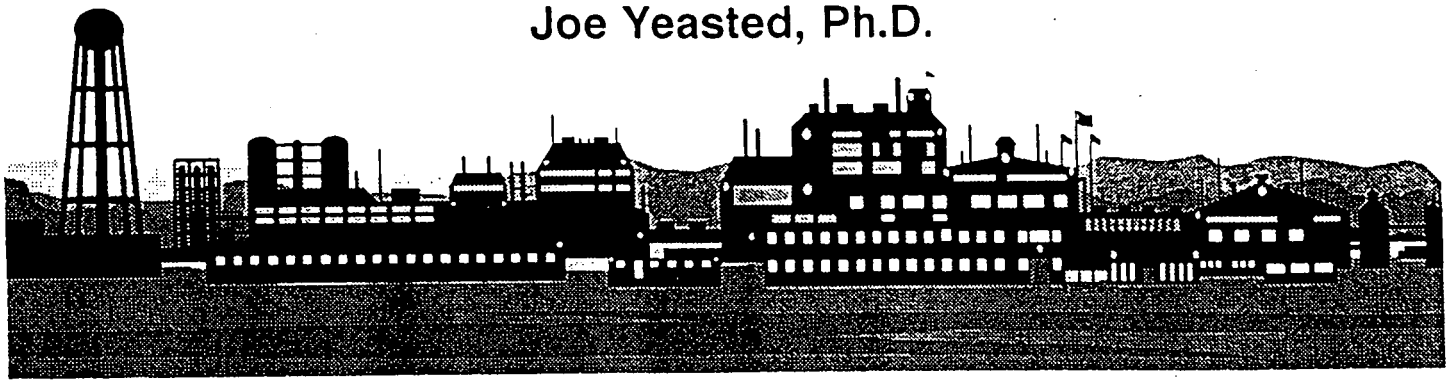
FEASIBILITY STUDY: FINDING SOLUTIONS

FEED MATERIALS PRODUCTION CENTER
REMEDIAL INVESTIGATION / FEASIBILITY STUDY

Community Meeting
October 24, 1989

Joe Yeasted, Ph.D.



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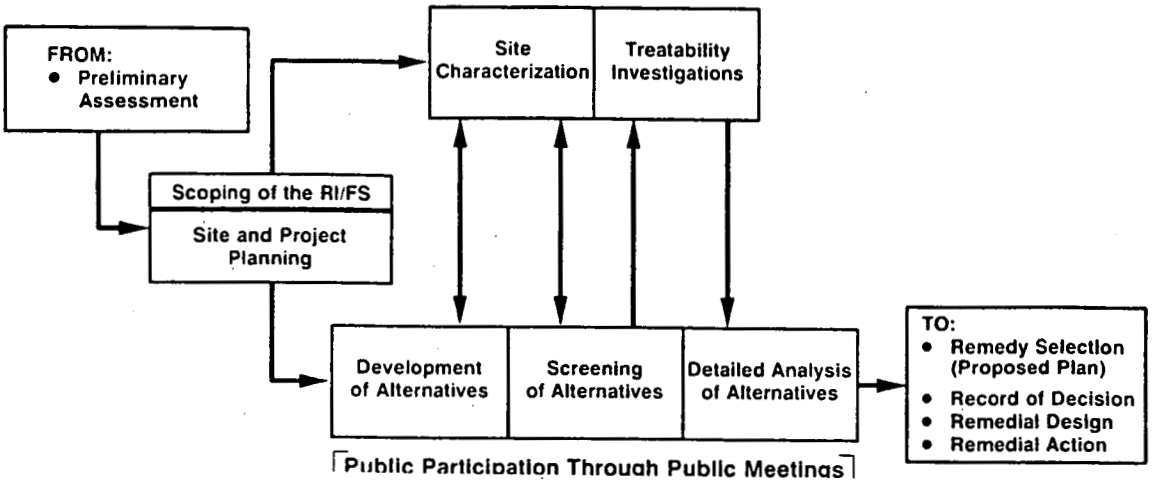
THE FEASIBILITY STUDY PROCESS:

How Solutions are Developed



PUBLIC INPUT

- An Important Part of The Feasibility Study
- Updates on Feasibility Study Status are Presented During RI/FS Community Meetings
- Meetings Provide the Opportunity for Public Comments
- Public Comments are Documented and Taken Into Consideration

STATUS: WATER - SOIL (OPERABLE UNIT 5)

Development of Alternatives	Screening of Alternatives	Detailed Analysis of Alternatives
Complete		

STATUS: PRODUCTION AREA (OPERABLE UNIT 3)

Development of Alternatives	Screening of Alternatives	Detailed Analysis of Alternatives
Complete		

STATUS: WASTE PITS (OPERABLE UNIT 1)

Development of Alternatives	Screening of Alternatives	Detailed Analysis of Alternatives
Complete	In Progress	

STATUS: SOLID WASTE UNITS (OPERABLE UNIT 2)

Development of Alternatives	Screening of Alternatives	Detailed Evaluation Alternatives
Complete	In Progress	

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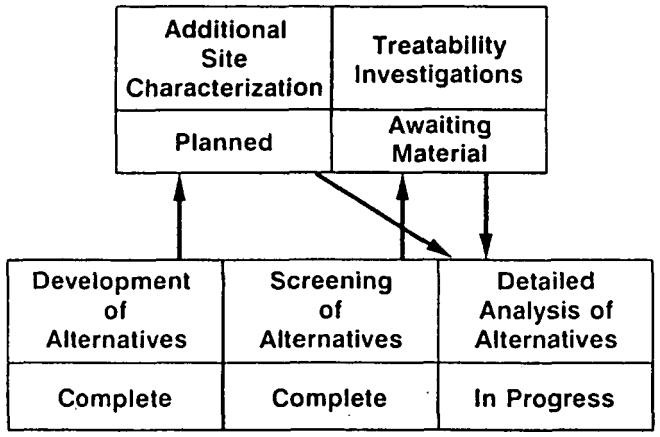
STATUS: K-65 SILOS (OPERABLE UNIT 4)



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SILOS

Alternatives

- No Action
- In-place Isolation
- In-place Stabilization of Waste
- Waste Removal, Stabilization, On-site Disposal
- Waste Removal, Separation, On-site Disposal by Component
- Waste Removal, Stabilization, Off-site Disposal
- Waste Removal, Separation, Off-site Disposal by Component

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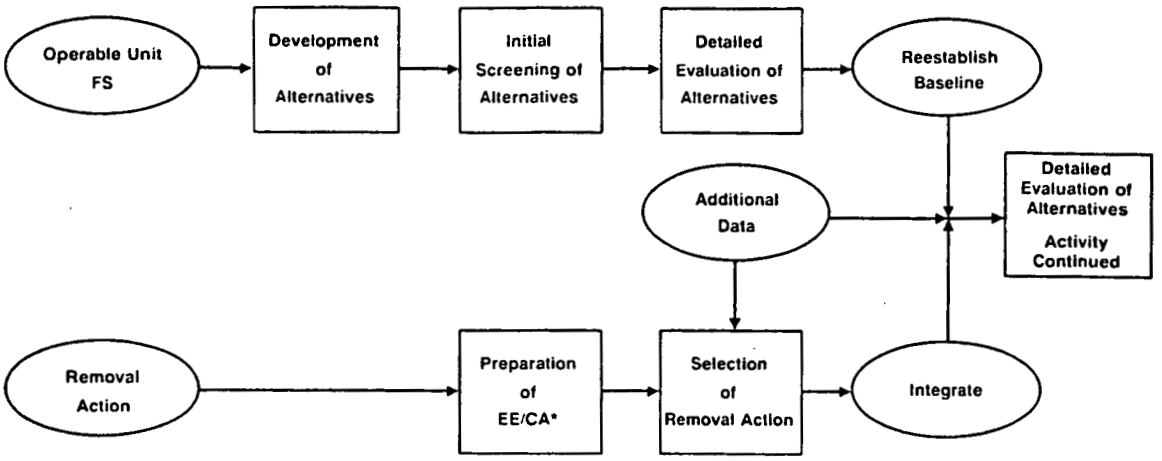
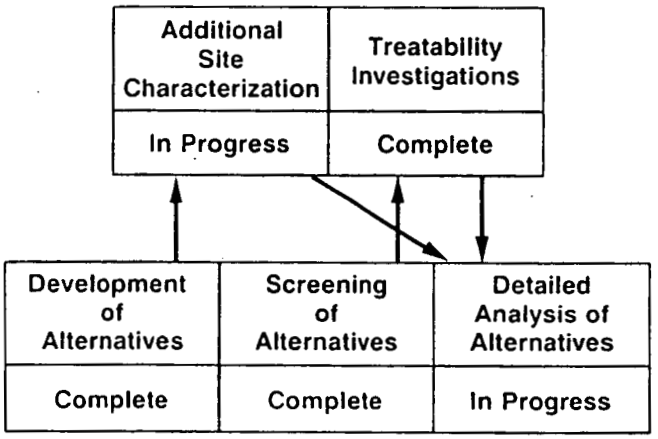
REMEDIAL ACTIONS AND REMOVAL ACTIONS:
HOW THEY RELATE



* EE/CA = Engineering Evaluation/Cost Analysis

STATUS: SOUTH PLUME (OPERABLE UNIT 6)



SOUTH PLUME

Alternatives

- No Action
- Ground Water Pumping and Reinjection for Plume Control
- Ground Water Pumping Without Treatment
- Ground Water Pumping With Treatment
- Use Restrictions With Alternate Water Supply
- Use Restrictions With Treatment at User Locations

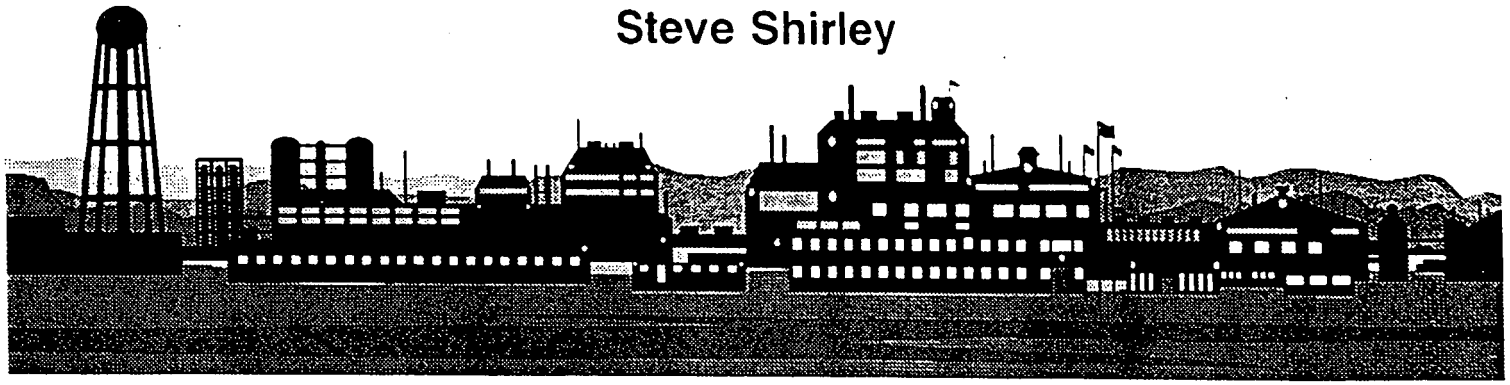
[redacted]

REMOVAL ACTIONS: NEAR-TERM CLEAN-UP

FEED MATERIALS PRODUCTION CENTER
REMEDIAL INVESTIGATION / FEASIBILITY STUDY

Community Meeting
October 24, 1989

Steve Shirley



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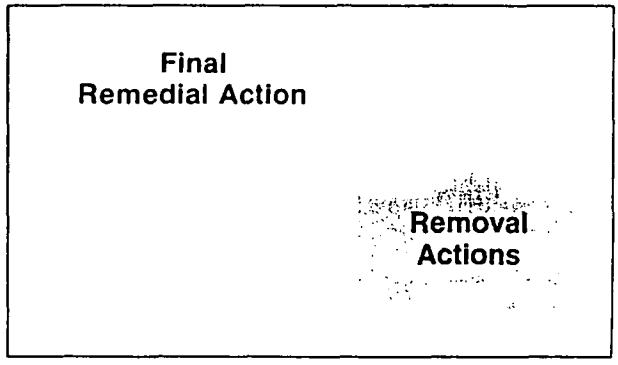
REMOVAL ACTIONS

- Action Taken to Prevent or Minimize the Threat to Human Health or the Environment
- Begins as soon as Possible after Need is Identified
- Removal Action is One of Two Types of Clean-up Activity Underway at the FMPC:
  - Removal Actions, considered "Near-term Clean-up"
  - Remedial Actions, considered "Final Clean-up"
- Removal Action Designed to be Consistent with Final Remedial Actions Alternatives Identified in the Feasibility Study

REMOVAL ACTIONS AND REMEDIAL ACTIONS



REMOVAL ACTIONS UNDERWAY

- Control of Stormwater Run-off Water from the Waste Pits
- K-65 Silos
- South Plume Pumping
- Pumping Perched Water from Underneath Plant Buildings
- Removal of Off-site Contaminated Soil

WASTE PIT RUN-OFF CONTROL

- Site Model Illustrates How Run-off Will be Controlled
  - Model a part of "Developing Solutions" display
- Detailed Engineering Underway
- Detailed Study - "Engineering Evaluation/Cost Analysis" - Being Prepared and Will be Placed in Administrative Record
- Construction to Start in Spring 1990

K-65 SILOS

- Sand Fill Currently on Hold
- Additional Studies and Sampling Underway:
  - University of Cincinnati probabilistic risk assessment
  - Bechtel National, Inc. structural analysis of domes
  - Additional sampling of silo contents
  - Berm sampling and slant borings
- Engineering Evaluation/Cost Analysis to be Prepared
- Public input is part of this process

SOUTH PLUME

- Engineering Evaluation/Cost Analysis Draft Written
  - Five alternatives for clean-up identified:
    1. No action
    2. Monitoring & institutional controls
    3. Provide alternate water supply
    4. Ground water pumping without treatment
    5. Ground water pumping with treatment
- Public Input is Part of This Process
- Construction to Start in Spring 1990

[redacted]

PRODUCTION FACILITY PERCHED WATER

- 14 Borings (Monitoring Wells) Drilled Underneath Floor of Plant
  - Results: 3 of 14 borings identified pockets of water known as "perched water" that are contaminated
- Action: Pump the Water Out of the Ground
  - Approximately 35,000 gallons of water pumped since August 1988
  - Additional pumping systems are built and installed in three borings containing water
- All Pumped Water Will be Treated at Existing FMPC Treatment Systems
- Report on Removal Action is in the Administrative Record

0947.8

MANHOLE 180

- Location of Off-site Soil Contamination That Occurred Last Spring
- Contamination Resulted From an Overflow of the Discharge Line to the River
- Removal Activities:
  - 125 cubic feet of soil was removed and is stored at the FMPC
  - Report on the removal action is in the Administrative Record
- Removed Soil to Below Target Levels
- Discharge Line has been Inspected and Repaired; the Integrity of the Line has been Restored

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[redacted]

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PUBLIC INVOLVEMENT

- Is Important in the Process
- Watch Local Newspapers for Public Notices Announcing New Removal Action Documents, Known as the "Administrative Record", Available in Reading Rooms
- Attend Future Community Meetings and Check FMPC Publications for Updates
- Let DOE Know What You Think About Specific Removal Actions

REMOVAL ACTIONS: SUMMARY

- PRESENT: Five Removal Actions Identified and in Progress
- FUTURE: More May be Identified as Additional Remedial Investigation Data Become Available
- Removal Actions Being Designed are Consistent With Potential Final Remedial Actions Identified in the Feasibility Study

[redacted]

ATTEND PUBLIC MEETINGS

Scheduled throughout the year

WRITE

U.S. Department of Energy
P.O. Box 398705
Cincinnati, Ohio 45239

READ

Visit Reading Rooms filled with reports, fact sheets, plans, and required Administrative Record * documents.

They are located in:

***FMPC Administration Building**
7400 Willey Road
Cincinnati, Ohio 45239
(513) 738-6376
Mon. - Fri.: 7 a.m. - 6 p.m.

The Main Public Library of Cincinnati and Hamilton County (Downtown)
800 Vine Street
Cincinnati, Ohio 45202
(513) 369-6938
Mon. - Fri.: 9 a.m. - 9 p.m.
Sat.: 9 a.m. - 6 p.m.

Harrison Branch Library
300 George
Harrison, Ohio 45030
(513) 367-4728
Mon., Tues., Wed.: 1 - 9 p.m.
Thurs.: 1 - 5:30 p.m.
Fri., Sat.: 9 a.m. - 5:30 p.m.

***Lane Public Library**
North Third & Buckeye Streets
Hamilton, Ohio 45011
(513) 894-7156
Mon. - Thurs.: 9 a.m. - 9 p.m.
Fri., Sat.: 9 a.m. - 5 p.m.